

**UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF VIRGINIA  
ALEXANDRIA DIVISION**

OHIO STATE INNOVATION  
FOUNDATION,

Plaintiff,

v.

AKAMAI TECHNOLOGIES, INC.,

Defendant.

Case No. 1:19-cv-00484

**COMPLAINT FOR PATENT  
INFRINGEMENT**

**DEMAND FOR JURY TRIAL**

Plaintiff, Ohio State Innovation Foundation (“OSIF”), files this complaint for patent infringement against Akamai Technologies, Inc. (“Akamai”), and in support thereof alleges and avers as follows:

### **NATURE OF THE ACTION**

1. This is a civil action arising under the patent laws of the United States, 35 U.S.C. § 1 et seq., specifically including 35 U.S.C. § 271, based on Akamai’s willful infringement of U.S. Patent No. (9,531,522) (“the ‘522 Patent”). The ‘522 Patent is attached as Exhibit A.

### **THE PARTIES**

2. OSIF is a not-for-profit corporation organized under the laws of the State of Ohio and having an address at 1524 North High Street, Columbus, Ohio 43201. OSIF was formed in 2012 to hold, manage, and facilitate commercialization of intellectual property developed at or created by or for The Ohio State University.

3. Akamai is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business at 150 Broadway, Cambridge, Massachusetts 02142.

### **JURISDICTION AND VENUE**

4. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a) because the claims arise under the patent laws of the United States, 35 U.S.C. § 1 et seq., including 35 U.S.C. § 271.

5. This Court has personal jurisdiction over Akamai insofar as it maintains a regular and established place of business in this Judicial District at 11111 Sunset Hills Road, Reston, Virginia.

6. Venue is proper in this Judicial District under 28 U.S.C. § 1400(b) in light of Akamai's regular and established place of business in this Judicial District. Further, on information and belief, Akamai has committed and continues to commit acts of patent infringement in this Judicial District by using its Mobile Application Performance ("MAP") software development kit ("SDK") and by inducing others to use the product. Upon information and belief, at the facility in Reston, Virginia, Akamai performs, *inter alia*, testing for the Global Content Delivery Service ("GCDS"), which is Akamai's Managed Content Delivery Network ("MCDN") product. Akamai's GCDS taps into hundreds of specially equipped servers to deliver Web content.

#### **THE PATENT-IN-SUIT**

7. The '522 Patent, titled *System and Method for Proactive Resource Allocation*, was issued by the United States Patent and Trademark Office ("USPTO") on December 27, 2016. OSIF is the lawful owner by assignment of all rights, title and interest in the '522 Patent, including the right to sue for patent infringement and damages, including past damages. The '522 Patent is generally directed to the efficient use of network bandwidth.

8. Representative claim 1 of the '522 Patent states:

A computerized method performed by a network server in communication with a mobile network comprising;

(a) collecting from a mobile user device a plurality of prior requests from an individual user for user demand content from said network, said plurality of prior requests initiated by said mobile user device;

(b) analyzing said plurality of prior requests for user demand content collected from said mobile user device with machine learning techniques to build a profile for said individual user;

(c) generating a list of anticipated requests for user demand content from said individual user, said list comprising a deadline for each anticipated request;

(d) for each anticipated request and deadline in said list:

(1) downloading to said mobile user device in advance of said deadline data responsive to said anticipated request;

(2) storing said data in a memory in said mobile user device;

(e) receiving at least one actual request for user demand content from said individual user initiated by said mobile user device, and

(f) in response to said at least one actual request for user demand content from said individual user, presenting at said mobile user device data from said memory response to said actual user request.

### **FACTUAL BACKGROUND**

9. With the proliferation of wireless communication devices, the demand for the delivery of, *e.g.*, video content, has increased and is increasing, creating a corresponding need for increased bandwidth efficiency.

10. The invention of the '522 Patent provides for such increased efficiency by proactively determining content and delivering that content to mobile devices in off-peak hours based upon user habits.

11. The lead inventor on the '522 Patent, Dr. Hesham El Gamal, is the Chair of, and a Professor in, the Department of Computer and Electrical Engineering of The Ohio State University.

12. Dr. El Gamal, with others, formed Inmobly, Inc. ("Inmobly") to commercialize the invention of the '522 Patent. Inmobly has a license to the '522 Patent and other related patents from OSIF.

13. As part of Inmobly's efforts to commercialize what would become the invention of the '522 Patent, Dr. El Gamal approached Akamai in or around September 2013. Akamai had earlier commissioned a study that found that:

quick page loading is a key factor in a consumer's loyalty to an eCommerce site, especially for high spenders. 79 percent of online shoppers who experience a dissatisfying visit are less likely to buy from the same site again while 27 percent are less likely to buy from the same site's physical store, suggesting that the impact of a bad online experience will reach beyond the web and can result in lost store sales.

*Web Page Response Time* (Sept. 14, 2009) at 1 (Attached as Exhibit B).

14. On October 2, 2013 Inmobly and Akamai executed a mutual non-disclosure agreement. The non-disclosure agreement is attached hereto as Exhibit C.

15. In March 2014, Dr. El Gamal visited Akamai to describe Inmobly's business, including the patented technology and the uses and benefits thereof. Among others, Akamai's Vice President of Engineering, James V. Luciani, attended the meeting, which was subject to the non-disclosure agreement. The presentation included a disclosure that applications for key patents on the subject technology had been filed between 2010 and 2012. The presentation slides are attached hereto as Exhibit D. For example, presentation slide 15 explained to Akamai that the Inmobly scheduling module relied, in part, upon interactive learning to determine what content to position and when to position that content. Exhibit D at 15.

16. In the several months following Dr. El Gamal's presentation, Akamai accessed a demo version of Inmobly's technology to evaluate Inmobly's technology, including the methods that are covered by the '522 Patent.

17. During that same time, Akamai visited the Inmobly website on multiple occasions to obtain additional information about Inmobly's technology, including the methods that are covered by the '522 Patent.

18. As a result of its execution of the non-disclosure agreement, the March 2014 meeting and its extensive study of Inmobly's technology and methods, Akamai was well aware that any attempt to replicate those methods would infringe Inmobly's intellectual property and the patents that covered its technology and methods.

19. In the fall of 2014, Akamai informed Inmobly that it was not interested in licensing the patented technology and communications between the companies ceased.

20. Belying that assertion, in December 2014, Akamai filed an application on *Managing Mobile Device User Subscription and Service Preferences to Predictively Pre-Fetch Content*, which was assigned Application Serial No. 14/584,770 and has since published as U.S. Publication No. 2016/0191651 A1, attached as Exhibit E. Mr. Luciani of Akamai, who attended Dr. El Gamal's presentation, is the first named inventor on that application.

21. Furthermore, in February 2016, Akamai announced the commercial release of its Predictive Content Delivery ("PCD") platform for Mobile Video. That platform was "intended to help solve the challenges of HD quality video distribution to mobile devices across all networks," and "are designed to optimize secure content delivery and on-device caching to improve video quality and enable offline viewing on any device over any network." <https://www.akamai.com/us/en/about/news/press/2016-press/akamai-launches-predictive-content-delivery-solutions.jsp>.

22. Akamai subsequently introduced the product that OSIF accuses of infringement, the MAP SDK:

One of the most powerful capabilities of the Akamai MAP SDK is the ability to push content to the device before its requested. By segmenting audiences and associating key content with those segments, you can then choose to push appropriate content during "off hours". For example, when network resources are highly available, in order to overcome times of high network congestion, or when the client may be entirely offline. Akamai intelligently pre-loads content in the background to help your app start up instantly, even when offline.

<https://developer.akamai.com/legacy/tools/map/>.

23. Exhibit F, attached hereto, is a true and accurate copy of the MAP SDK platform that depicts how the MAP SDK platform operates.

24. As shown in Exhibit G, hereto, the use of Akamai's accused MAP SDK platform by Akamai and its customers infringes at least claim 1 of the '522 Patent.

25. Among other things, the instructional information that Akamai distributes to its customers indicates that Akamai intends that its customers use the accused MAP SDK platform in a manner that infringes at least claim 1 of the '522 Patent:

One of the most powerful capabilities of the Akamai MAP SDK is the flexibility it provides you to push content to the client during times of high network availability, in order to have that content at the ready when the client needs it. By segmenting audiences and associating key content with those segments, you can then choose to push appropriate content during "off hours". For example, when network resources are highly available, in order to overcome times of high network congestion, or when the client may be entirely offline. Akamai intelligently pre-loads content in the background to help your app start up instantly, even when offline.

<https://developer.akamai.com/legacy/tools/map/>.

25. On January 28, 2018, OSIF notified Akamai that it was infringing at least claim 1 of the '522 Patent, and therefore required a license under that patent.

26. Akamai ultimately responded that it would not take a license under the '522 Patent, necessitating this action.

**FIRST CAUSE OF ACTION**

**(Infringement of the '522 Patent)**

27. OSIF incorporates by reference and realleges each and every allegation of Paragraphs 1 through 26 as if set forth herein.

28. As set forth in the attached non-limiting claim chart (Exhibit G), Akamai uses, and has used, the accused MAP SDK platform by, *inter alia*, testing the product in a manner that infringes at least claim 1 of the '522 Patent.

29. Akamai actively induces the infringement of at least claim 1 of the '522 Patent by inducing others to use the accused MAP SDK platform in a manner that infringes that claim. Akamai aids, instructs, or otherwise acts with the intent to cause an end user to use the accused MAP SDK platform. Akamai knew of the '522 Patent and knew that the actions of an end user would infringe at least claim 1 of the '522 Patent. For at least the above reasons, Akamai actively induces others to infringe at least claim 1 of the '522 Patent.

30. Akamai contributes to the infringement of claim 1 of the '522 Patent by providing, and by having knowingly provided, a material part of the instrumentalities used to perform the method recited in claim 1 of the '522 Patent, said instrumentalities having no substantial non-infringing uses. When an end user uses the accused MAP SDK platform, the end user directly infringes claim 1 of the '522 Patent. Akamai knew that the accused MAP SDK platform was especially made for use in an infringing method. For at least the reasons set forth above, Akamai contributes to the infringement of the '522 Patent by others.

31. Akamai's infringement of the '522 Patent has caused, and will cause, OSIF to suffer substantial and irreparable harm.

32. Akamai's infringement of the '522 Patent has been willful.



**PRAYER FOR RELIEF**

WHEREFORE, OSIF requests that:

- A. The Court find that Akamai has directly infringed, induced others to infringe, and/or contributorily infringed the '522 Patent and hold Akamai liable for such infringement;
- B. The Court award damages pursuant to 35 U.S.C. § 284 adequate to compensate OSIF for Akamai's past infringement of the '522 Patent, including both pre- and post-judgment interest and costs as fixed by the Court;
- C. The Court increase the damages to be awarded to OSIF by three times the amount found by the jury or assessed by the Court;
- D. The Court declare that this is an exceptional case entitling OSIF to its reasonable attorneys' fees under 35 U.S.C. § 285; and
- E. The Court award such other relief as the Court may deem just and proper.

Dated: April 19, 2019

\_\_\_\_\_/s/  
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**DEMAND FOR JURY TRIAL**

Plaintiff Ohio State Innovation Foundation hereby demands a trial by jury on every issue on which it is so entitled.

Dated: April 19, 2019

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